

From: [Frey, Sarah](#)
To: [Osbourne, Margaret](#)
Subject: RE: Nov 15-16
Date: Wednesday, November 30, 2016 1:12:00 PM
Attachments: [special-review-20161114-20161115.pdf](#)

They would not be dredging or trucking at night. The lighting conditions would be dangerous and they have contractors doing the work. It is possible, however, that the H2S from day time dredging pools, and the right wind conditions can send large wafts of concentrated H2S in the evening. With no sunlight to breakdown the compounds, it can travel further.

-----Original Message-----

From: Osbourne, Margaret
Sent: Wednesday, November 30, 2016 1:08 PM
To: Frey, Sarah <frey.sarah@epa.gov>
Subject: RE: Nov 15-16

Yes, please do. Rev. Bouie is complaining that they're dredging and trucking which is creating the emissions. Would they run the trucks all night? Do they dredge at night?

Margaret Osbourne
Chief, Air Toxics Enforcement Section
Compliance Assurance & Enforcement Division EPA Region 6
1445 Ross Avenue (6EN-AT)
Dallas, TX 75202
214-665-6508

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-----Original Message-----

From: Frey, Sarah
Sent: Wednesday, November 30, 2016 1:04 PM
To: Osbourne, Margaret <osbourne.margaret@epa.gov>
Subject: RE: Nov 15-16

Yes, there is a report. I'm having problems downloading it now, but can send it to you later, if you would like.

It is the second highest occurrence, the highest hit ever was 2/26/16 at 210 ppb.

-----Original Message-----

From: Osbourne, Margaret
Sent: Wednesday, November 30, 2016 10:44 AM
To: Frey, Sarah <frey.sarah@epa.gov>
Subject: Re: Nov 15-16

Is there a report? Is 160 the highest hit ever? (b) (6) had to go to the hospital.

Sent from my iPhone

> On Nov 30, 2016, at 10:38 AM, Frey, Sarah <frey.sarah@epa.gov> wrote:

>

> Mon Nov 14th 240am to 830am and again on Tues Nov 15th from 9pm to

> midnight. Tuesdays was very high, maxing out at 160 ppb

>

> -----Original Message-----

> From: Osbourne, Margaret

> Sent: Wednesday, November 30, 2016 10:35 AM

> To: Frey, Sarah <frey.sarah@epa.gov>

> Subject: Nov 15-16

>

> Can you check the monitor in Crossett for these dates and let me know if there were excursions.

>

> Sent from my iPhone

From: [Hirtz, James](#)
To: [Frey, Sarah](#)
Cc: [Spence, Kelley](#)
Subject: RE: Modeling Run - Crossett
Date: Wednesday, December 28, 2016 9:48:50 AM
Attachments: [image001.png](#)

Thanks I will do some mapping with these new coordinates and adjust my modeling file if necessary. Have a Happy New Year as well, once I get done with the adjustments also want to talk to you about developing a report or study for this site and get your views on how we want to wrap this up. If you have a second I am in today and tomorrow until 1130 am. Then I will be back all next week, except for Monday

Thx

Jim

James Hirtz
Environmental Protection Agency
OAQPS/HEID/ATAG
109 T.W. Alexander Drive
RTP, NC

w# (919)-541-0881

From: Frey, Sarah
Sent: Wednesday, December 28, 2016 10:32 AM
To: Hirtz, James <Hirtz.James@epa.gov>
Cc: Spence, Kelley <Spence.Kelley@epa.gov>; Osbourne, Margaret <osbourne.margaret@epa.gov>; Haynes, James <haynes.james@epa.gov>
Subject: RE: Modeling Run - Crossett

Hello, Jim!

- 1) The P2 sewer sampling shack is approximately located at 33.1397, -91.9783 and is a small channel open to the air: 5 meters wide and 25 meters long. We definitely observed the highest concentrations at this location.

The P1 and P2 sewers combine and are open to the atmosphere at 33.1386, -91.9798 with dimensions of 6 meters wide and 30 meters long before being buried pipeline again. The P3 sewer has more area open to the atmosphere, 6 meters wide and 140 meters long, going underground around 33.1384, -91.9801

We anticipate placing a monitor around 33.1385, -91.9800 between the open P1/P2 channel and the P3 channel, just before they are buried. If we find that the cartridge becomes supersaturated at this location, we will move it further west.

- 2) I will take a closer look at the swine lagoon study next week. During our September visit, I believe most of the observed emissions were from chemical pathways. However, during our October visit with the GMAP, there were obvious biological activity resulting in H2S emissions, especially in the Ash Basins (east inlet located: 33.1228, -91.9936). I will be on the lookout for other studies regarding biological activity multipliers. The only issue is that it seems that the wastewater charge at this pulp and paper facility does experience lots of change, so I'm not sure if a seasonal multiplier would be as effective due to the large variation of sulfide loading and pH at this mill. But it's a good place to start!
- 3) I have not received any cavity ringdown data yet. As of Nov 21st, we were third in line on Region 5's "to-do" list. I will reach out again to see if we can get anything soon.

I'm currently working on building our database. Are there any specific fields that would be useful to you as we input our collected data?

Our plan is to install the monitors Jan 10-12 and start the first sample collection Friday, January 13th. Here are our tentative locations, though the lat/longs may be slightly adjusted. We are still working on obtaining access for COM7. I have also attached a site map: red markers are community locations, green markers are on GP property.

SiteList			
SiteID	SiteDescrip	Latitude	Longitude
COM1	Colocated with continuous monitor	33.137301	-91.997251
COM2	S. Wall Rd & W 3rd Ave.	(b) (6)	
COM3	Dunmore Loop	(b) (6)	
COM4	N. Missouri St & W 6th Ave. Clemmie Wimberly Athletic Park	33.127772	-91.974403
COM5	Entrance gate near Westview Cemetery, east of WWT system.	33.125816	-91.982741
COM6	Bethea Rd, east of WWT system	(b) (6)	
COM7	Ashley County Rd 223, west of Thurman Rd		
COM8	near Thurman Rd & Hwy 82	(b) (6)	

THUR	Entrance gate on Thurman Rd.	33.128333	-92.007127
ASB1	Aeration Stabilization Basin, Zone 1	33.111990	-92.020250
ASB2	Aeration Stabilization Basin, Zone 2	33.109707	-92.025068
CONV	Convergence of all streams, post clarifier	33.126836	-91.993042
EABI	East Ash Basin Inlet	33.122851	-91.993573
EABO	East Ash Basin Outlet	33.120609	-91.994210
MILL	On mill side, prior to sewer streams traveling underground	33.138543	-91.979766
OUT	Outfall 001	33.106264	-92.038111
PCLR	Primary Clarifier, when P1/P2 sewers are exposed to atmosphere	33.128940	-91.993544
SBO	Surge Basin Outlet	33.117042	-92.008124
WABI	West Ash Basin Inlet	33.123134	-91.995174
WABO	West Ash Basin Outlet	33.120908	-91.995637

Happy New Year! Thank you so much for your help!

Sarah

From: Hirtz, James

Sent: Tuesday, December 20, 2016 3:14 PM

To: Frey, Sarah <frey.sarah@epa.gov>

Cc: Spence, Kelley <Spence.Kelley@epa.gov>

Subject: Modeling Run - Crossett

Hi Sara finished a rough model run for the GP site, and looking at the monitoring data and aligning the modeling run with these results, I have a few questions for you.

1. The modeling run when married with the monitoring data seems to indicate the P1/P3 sewer lines contributing quite a bit to the MIR site (ie the most exposed individual). So what I want to know from a modeling perspective, how would you characterize the site (ie lat/long) dimensions etc.

From my modeling run this is primarily the only source with wind direction (73 – 94) degrees besides the stack releases. So for this source I have about 23 tons/year being emitted and about 220 tpy being emitted all together from all sources.

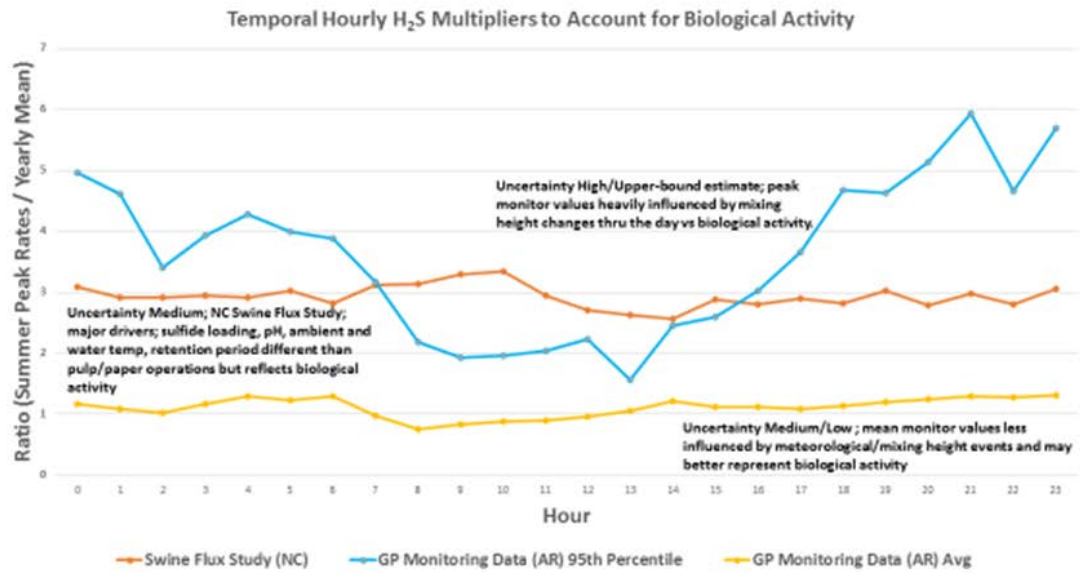
So I have the P1/P2 sewer open at this lat/long:

33.1397 -91.9783

And I am modeling it as an Area Source with dimensions of 20 meters wide by 135 meters long. Based upon the Jerome monitoring data in which you were seeing the largest hits around this area would you agree with these dimensions or propose something else.

I also found a flux measurement study (swine lagoon) done on hydrogen sulfide here in NC, and the multiplier for this site was about 3 , so I looked at the monitoring data in addition to this study to see if I could develop an acute multiplier, I may want to apply. The flux study would basically zero out any met influences and highlight biological activity only. The flux rates maybe sign different when comparing a swine lagoon to a pulp/paper WWTP, but considering everything equal and that the WW charge does not change too much over time for either operation, it seems like a good starting point.

In the end, I settled for a Summer Seasonal multiplier of 2 (mid-point between the flux study and Summer Mean/ Ann Avg Temporal Curve); see chart below have you come across anything in regards to biological activity multipliers that maybe appropriate to use. This would reduce the meteorological influence on the data, vs using the 95th Percentile of Summer Monitoring Data / Yearly Mean Concentration for each hour. Any news on the cavity ring data;



Happy Holidays

Jim

919-541-0881

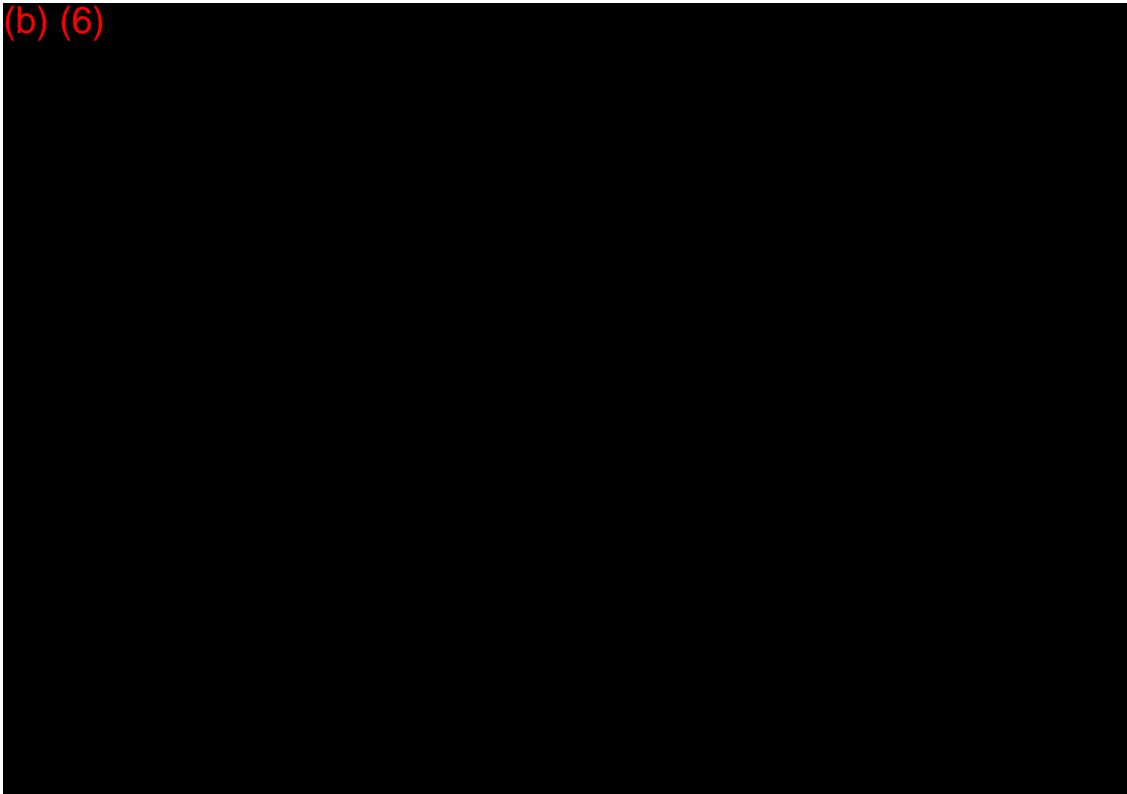
Proposed H2S Sites

1. COM1 – collocated with current H2S community monitor, north of WWT system

- Need to walk through the property of (b) (6) to access the community monitor on GP Fenceline (b) (6)

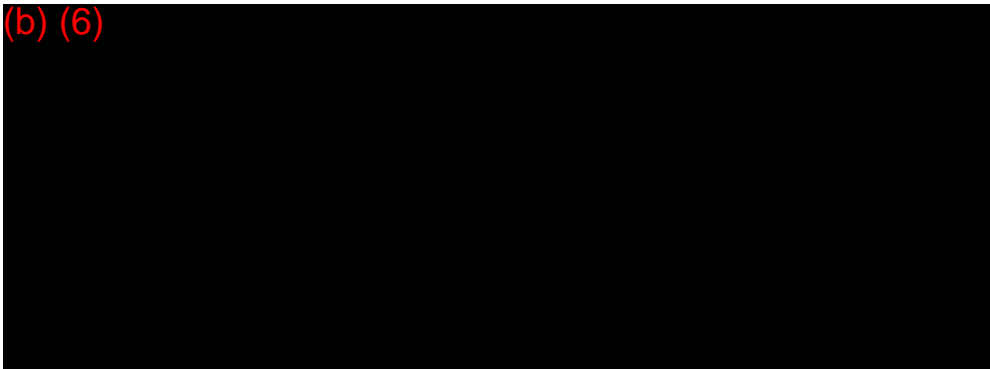
2. **COM2 – community monitor near S. Wall Rd and W 3rd Ave**

(b) (6)




3. **COM3 – community monitor on Dunmore Loop**

(b) (6)

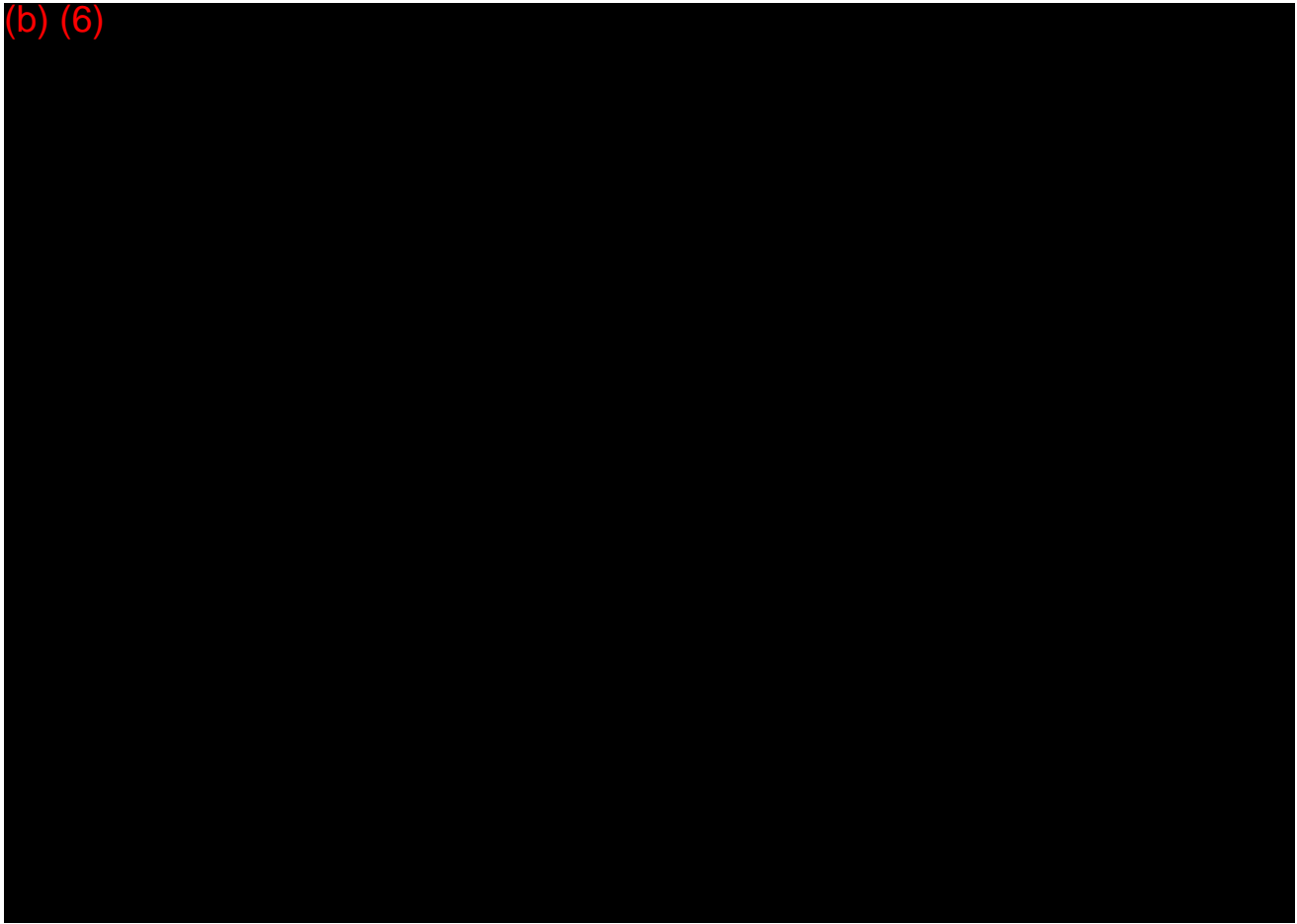


(b) (6)

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4. COM4 – community monitor at N Virginia St. and W 3rd Ave/6th Ave

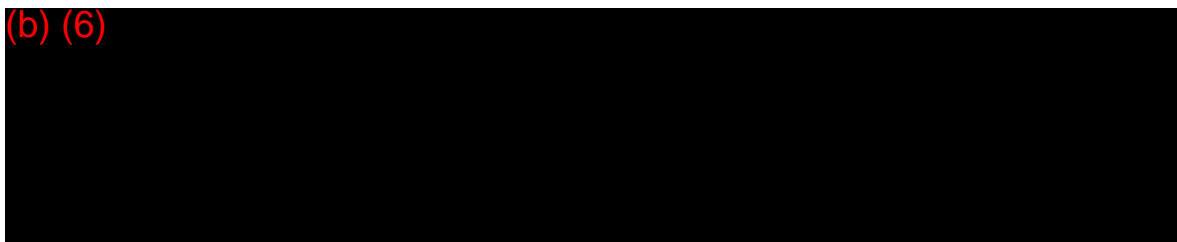
(b) (6)

A large rectangular area of the document is completely redacted with a solid black fill.

5. COM5 –near Pistole St, east of WWT system (fence line) Westview Cemetery


6. COM6 – community monitor at Lawson Rd and Beathea Rd

(b) (6)

A rectangular area of the document is completely redacted with a solid black fill.

7. COM7 – community monitor on Ashley Rd 223, west of Thurman Rd

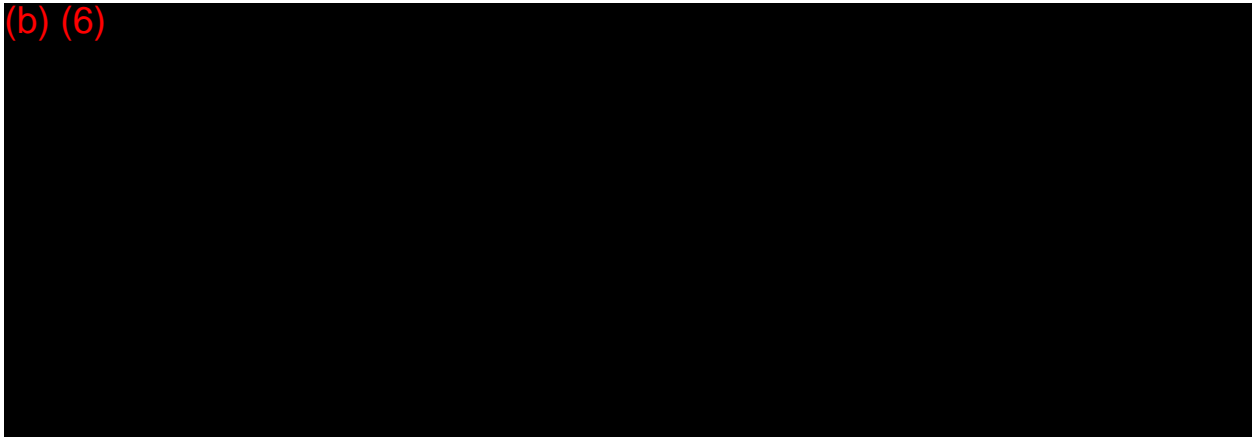
(b) (6)

A large black rectangular redaction box covering the content of item 7.

- Ideally, directly north of the ASB Spoils – Parcel 001-10297-000 owned by Southern Diversified Timber LLC c/o Dave King – Does road belong to land owner or to city?

8. COM8 – community monitor at Thurman Rd/Stephens Rd and Hwy 82

(b) (6)

A large black rectangular redaction box covering the content of item 8.

9. THUR – Located near community northwest of WWT system (fence line)

10. MILL – Prior to streams traveling underground

11. PCLR – Primary Clarifier, when P1/P2 sewers are exposed to atmosphere

12. CONV – Convergence of all streams (P1, P2, P3, dewatering process), post-clarifier

13. WABI – inlet of west ash basin

14. EABI – inlet of east ash basin

15. WABO – outlet of west ash basin

16. EABO – outlet of east ash basin

17. SBO – Surge Basin Outlet

18. ASB1 – Aeration Stabilization Basin Zone 1

19. ASB2 – Aeration Stabilization Basin Zone 2

20.OUT – Outfall 001

Proposed H2S Sites

1. COM1 – collocated with current H2S community monitor, north of WWT system
2. **COM2 – community monitor near S. Wall Rd and W 3rd Ave**
 - (b) (6)
3. **COM3 – community monitor on Dunmore Loop**
 - (b) (6)
4. **COM4 – community monitor at N Virginia St./N Missouri St. & 6th Ave**
5. COM5 –near Pistole St, east of WWT system (fence line) Westview Cemetery
6. **COM6 – community monitor at Lawson Rd and Beathea Rd**
 - (b) (6)
7. **COM7 – community monitor on Ashley Rd 223, west of Thurman Rd**
 - Ideally, directly north of the ASB Spoils – Parcel 001-10297-000 owned by Southern Diversified Timber LLC c/o Dave King – Need to obtain county judge permission in 2017
8. **COM8 – community monitor at Thurman Rd/Stephens Rd and Hwy 82**
 - (b) (6)
9. THUR – Located near community northwest of WWT system (fence line)
10. MILL – Prior to streams traveling underground
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12. CONV – Convergence of all streams (P1, P2, P3, dewatering process), post-clarifier
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- 15. WABO– outlet of west ash basin
- 16. EABO – outlet of east ash basin
- 17. SBO – Surge Basin Outlet
- 18. ASB1 – Aeration Stabilization Basin Zone 1
- 19. ASB2 – Aeration Stabilization Basin Zone 2
- 20. OUT – Outfall 001